Work Ord Thursday, June				*191	690*						Page 1
Item ID: Revision ID:	D3601-1			Accept	*N900	040	100)* s	Setup Star	17	S1*
Item Name:	Radius Block								Sto	[▶] *N	S2*
Start Date:	6/26/14	Start Qty: 20.00	*20*		Cust Item 1	ID:					
Required Date	: 6/26/14	Req'd Qty: 20.00	*20*		Customer:						
Reference:									_		•
Approvals:	Process Pl	an: MLJ	Date: 14-06-3	⊃ Tooling:	D	ate:	_	R	Run Sta	~1/1	R1*
	QC:		Date:	SPC (Y/N):	D	ate:			Sto	*N	R2*
Sequence ID/ Work Center I	D	Operation Description	·	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Re	vision Nbr			······································	~~					<u>-</u>
D3601	Re	v A									
100				0.00							
100		SHEAR						3	Ø		MU
Shear Shear		Memo	" long +/- 0.030"Note: 1 bla	0.00							14/07/05
		oraliks 5.00	long 1/2 0.050 Note. I bis								
110		W. A. G. C. C. Tribumo A.		0.00							
110 HAAS 1		HAAS CNC VERTICAI	L MACHINING #1	0.00				22	⊘		MH
HAAS CNC vertice	al machine #1	Memo 1- Mill as p	er Folio FA682 Rev: 🗛	0.00 & Dwg D3601 Rev: <u>A</u>	<u>-</u>						14/07/05
120		QC2- Inspect parts off n	aachine FAI/FAIR	0.00							
120		QC2 mspeet parts off in		0.00				22	Ø		MH
QC		Memo		0.00							
Quality Control											14/07/05

DQA:			Date:											
					,	WORK ORDER NON-	-CC	ONFO	RMANCE / UPDATE				AEROSPACE	
QA Closed:			Date:							W	ork Order up	odate only		
Maril Orde						DISPOSITION			AGAINST	DE	PARTMENT	/PROCESS		
Work Orde	er: .					Rework	ıÌ		Skid-tube Crosstube		1	Water Jet	Engineering	
Part N	lo.					Scrap			Machining Small Fab		4	d. Eng. Coor.	Quality	
NCR N	۱o. ِ				·	Use-as-is Suspected Unapproved		Thern	noforming Finishing Large Fab Composite	re/Packaging Supplier	Other			
Root					Desc	ription of work order update	ı	nitial	Action		Sign &			
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector	
Design														
Doc/Data														
Equip/Tooling														
Handling/Pre	Ш			ļ										
Material													,	
Operator				ľ		·								
Offset/Setup														
Process														
Supplier					1				`					
Training														
Transport			ł											
Unapproved							<u> </u>							
							FA	ULT CA	TEGORY					
Landi	ng (Gear			_	General		1 .		_	1	. —	٦	
		Bending			_	Bend	<u> </u>	1	Program	\vdash	Outside Dim		Pressure/Forced	
		Centre No	ot Concer	ntric	_	BOM/Route	<u> </u>	Grain		<u> </u>	Over/Under	<u> </u>	Set-up	
		Cracks			_	Broken/Damage/Defect		Hardwa		 	Part Incorre		Temperature/Cure	
		Crimp/Kii	nk/Ripple	e/Wave		Burrs		4 '	ion Incomplete/Unqualified	\vdash	Part Lost/Mi	ssing	Weld	
	<u> </u>	Cuffs			<u> </u>	Contamination	_	4	tions Incomplete/Unclear	\perp	Part Moved	Ĺ	Wrong Stock Pulled	
·		Crushing				Countersink	<u></u>	•	gned/off center	<u>_</u>	Positioned V		٦	
	<u> </u>	Heat Trea				Cut Too Short	<u></u>	Mislabe			Power Loss/	Surge	Other	
		Inspectio	•	Tube		Drawing	ļ	Misrea						
		Marks/Ch				Drill Holes		Off-set						
	L	Turning S				Finish		4	Calibration			····		
		Wave/Tw	vist in Tul	e		Fit/Function		Out of	Sequence					

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K. L.	4	*	

Work Order ID	121690
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Thursday, June					*12 ⁻	169	J()*							Page 2
Item ID: Revision ID:	D3601-1		,		Accept	*	1900	040	100	n *	Setup	Start	*N	S1*
Item Name:	Radius Block											Stop	*N	S2*
Start Date:	6/26/14	Start Qty: 20.	00	*20*			Cust Item II	D :						
Required Date	: 6/26/14	Req'd Qty: 20.0	00	*20*			Customer:							
Reference:														
Approvals:	Process Pla	n:	Date:_		Tooling:		Da	te:		I	Run	Start	*N	R1*
	QC:		Date:_	-10-	SPC (Y/N):		Da	te:				Stop	*N	R2*
Sequence ID/ Work Center I	D	Operation Description		•	Set Up/ Run Hours		Tool ID	Tool #	Plan Code	Accept Qty	Reje Qty		Reject Number	Insp. Stamp
130		QC8- Inspect parts -	second check		0.00									-
130 QC Quality Control		Memo			0.00									DAS 25 9-89
¹⁴⁰ *1∡∩*		Small Fab			0.00					07				9
Small Fab		Memo			0.00			ر		Ody				1410/101
Small Fab		1-Tumb		es after tumblin	g	2 2	HG14:	78						1. 1
150		Chemical Conversion	n Coat per QSI0	05 4.1	0.00									
150 HandFinish		Мето			0.00					22		H	14-7-7	9
Hand Finishing														

DQA:			Date:	ate:									DAPT			
				•		WORK ORDER NON-CONFORMANCE / UPDATE										
QA Closed:			Date:							W	ork Order up	odate only				
Mark Orde	٠,٠					DISPOSITION			AGAINST	DE	PARTMENT	/PROCESS				
Work Orde	er: •			-		Rework			Skid-tube Crosstube	Г		Water Jet	\neg	Engineering		
Part N	l۸					Scrap			Machining Small Fab	_	Pro	d. Eng. Coor.	┪	Quality		
raiti	٠.					Use-as-is	1		noforming Finishing		4	re/Packaging	┨	Other		
NCR N	lo.					Suspected Unapproved			Large Fab Composite			Supplier				
	•													- 100		
Root					Desci	ription of work order update	1	nitial	Action		Sign &					
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification	4	QC Inspector		
Design													Ì			
Doc/Data	_						l				•					
Equip/Tooling																
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Materialසුලු	\dashv					,							۱			
Operator	\dashv															
Offset/Setup	_															
Process	_												-			
Supplier Training													Ī			
Transport																
Unapproved					-											
опарриотеа	-		l	1			FA	ULT CA	TEGORY							
Landi	ng G	Gear				General					_					
		Bending				Bend]Folio/F	Program		Outside Dim	ensions	_	Pressure/Forced		
		Centre No	ot Concer	ntric		BOM/Route		Grain			Over/Under	tolerance	_	Set-up		
		Cracks				Broken/Damage/Defect		Hardwa	are		Part Incorre	F		Temperature/Cure		
		Crimp/Kir	nk/Ripple	/Wave		Burrs		Inspect	ion Incomplete/Unqualified	$ldsymbol{ld}}}}}}$	Part Lost/Mi	F	-	Weld		
		Cuffs				Contamination		-1	tions Incomplete/Unclear	_	Part Moved			Wrong Stock Pulled		
		Crushing				Countersink		4 `	gned/off center		Positioned V					
		Heat Trea				Cut Too Short		Mislab			Power Loss/	Surge		Other		
	_	Inspection		Tube		Drawing	_	Misrea								
	_	Marks/Ch				Drill Holes	_	Off-set								
		Turning S			<u> </u>	Finish	\vdash	4	Calibration							
	Wave/Twist in Tube					Fit/Function		Out of	Sequence							

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QC Quality Control

Work Orde Thursday, June				*121690*									
Item ID: Revision ID: Item Name:	D3601-1 Radius Block			Accept	*N900	0401	NN*	Setup	Start Stop	171	S1* S2*		
Start Date: Required Date: Reference:	6/26/14 6/26/14	Start Qty: 20.00 Req'd Qty: 20.00	*20* *20*		Cust Item I Customer:	D:							
Approvals:		an:	Date:	Tooling: SPC (Y/N):		nte:		Run	Start Stop		R1* R2*		
Sequence ID/ Work Center II 160 *160* QC Quality Control	D	Operation Description QC3- Inspect Part Finish Memo		Set Up/ Run Hours 0.00 33 14/03	Tool ID DAS 27 27 9-89	Tool# Pla	n Accede Qty	ept Rej Qty		Reject Number	Insp. Stamp		
170 *170* Packaging Packaging		ldentify as per dwg & Stoo Memo	ck Location T	0.00			7.	<u> </u>		TP/	4-7-		
180 *1 2 0*		QC21- Final Inspection -	Work Order Release	0.00				MUS	<u> </u>	<u> 7-67</u>	<u>-වි</u>		

MLJ 1407-09 MLJ 1407-09

DQA:			Date:				TOART									
						WORK ORDER NON-CONFORMANCE / UPDATE										
QA Closed:		_	Date:							W	ork Order up	odate only				
Work Orde	ır.					DISPOSITION			AGAINST	DE	PARTMENT	/PROCESS				
WOIK OIGE	•					Rework			Skid-tube Crosstube	Γ]	Water Jet	Engineering			
Part N	lo.					Scrap	- 1		Machining Small Fab	_	Pro	d. Eng. Coor.	Quality			
, 5, 5,	•					Use-as-is			moforming Finishing		-	re/Packaging	Other			
NCR N	۱٥.					Suspected Unapproved			Large Fab Composite]	Supplier				
Root					Desci	ription of work order update	ı	nitial	Action		Sign &					
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector			
Design																
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Operator																
Offset/Setup				·			1									
Process				1												
Supplier	Щ					:					1					
Training	_			Į												
Transport																
Unapproved			<u></u>	<u> </u>	<u> </u>				TECORY		<u> </u>	í <u> </u>				
							FAU	JLI CA	TEGORY							
Landi	_				г	General Bend		احمانه اد	Program		Outside Dim	ensions [Pressure/Forced			
		Bending	-+ C		-	BOM/Route	H	Grain	Flogram	<u> </u>	Over/Under	<u> </u>	Set-up			
		Centre No Cracks	ot Concer	itric	-	Broken/Damage/Defect	\vdash	Hardwa	ara	\vdash	Part Incorre	<u> </u>	Temperature/Cure			
1	\vdash	Cracks Crimp/Kir	مار /Binnla	Mayo	-	Burrs	-	4	tion Incomplete/Unqualified		Part Lost/M	<u> </u>	Weld			
	-	-	ik/kibbie	y wave	-	Contamination		ł '	tions Incomplete/Unclear	\vdash	Part Moved	- F	Wrong Stock Pulled			
		Cuffs Crushing				Countersink	\vdash	1	gned/off center	\vdash	Positioned \	∟ Vrong				
	\vdash	Heat Trea	at .			Cut Too Short	-	Mislab		\vdash	Power Loss/		Other			
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	\vdash	Marks/Ch				Drill Holes	 	Off-set								
	<u> </u>					Finish		4	Calibration		70.					
Turning Sequence Wave/Twist in Tube						Fit/Function	Out of Sequence									

Picklist Print

Thursday, June 26, 2014 3:07:00 PM

Work Order ID: 121690

121690

Parent Item:

D3601-1

D3601-1

Parent Item Name: Radius Block

Start Date: 6/26/14

Required Date: 6/26/14

Page 1

Start Qty: 20.00

Required Oty: 20.00

Comments:

IPP Rev:A New Issue 07-03-28 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Primary Item Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6B00750X00.1		Purchased	No	\ <u>\</u>		f	130.9320		2			

M6061T6B00750X00 125

6061-T6 Bar .750 x .125

**

Location	Loc Oty	Loc Code	
MAT049	130.932		
M127818	27.682		
M128866	3.25		
— M129167	100		2.36 MU
			14/07/03

DQA:			Date:										[®] DART			
						WORK ORDER NON-CONFORMANCE / UPDATE										
QA Closed:			Date:	· · · · · · · · · · · · · · · · · · ·			,			W	ork Order up	date only				
Work Ord	ar.					DISPOSITION			AGAINS ⁻	T DE	PARTMENT	/PROCESS				
WOIR OIG	٠				—	Rework			Skid-tube Crosstube		1	Water Jet	Engineering			
Part I	No.					Scrap			Machining Small Fal	<u> </u>	Pro	d. Eng. Coor.	Quality			
	•		-			Use-as-is			noforming Finishing	g	-4	e/Packaging	Other			
NCR I	No.		······································			Suspected Unapproved			Large Fab Composite							
Root					Desc	ription of work order update		nitial	Action		Sign &					
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector			
Design																
Doc/Data											ł					
Equip/Tooling	Ш															
Handling/Pre	Ш															
Material	Ш															
Operator	Ш															
Offset/Setup				,												
Process]													
Supplier																
Training	Ш						l									
Transport	Ш															
Unapproved			<u> </u>	_			<u> </u>		<u> </u>		<u> </u>					
				···			FA	ULT CA	TEGORY							
Landi	_				_	General	_	1 ,-			7	Г				
	Ш	Bending				Bend	<u> </u>	1	Program	\vdash	Outside Dim	⊢	Pressure/Forced			
		Centre No	ot Concer	ntric		BOM/Route	<u> </u>	Grain		-	Over/Under	· -	Set-up			
	\vdash	Cracks		_		Broken/Damage/Defect		Hardwa		\vdash	Part Incorre	⊢	Temperature/Cure			
	-	Crimp/Kii	nk/Ripple	/Wave	<u> </u>	Burrs	<u> </u>	1	ion Incomplete/Unqualified	\vdash	Part Lost/M	Issing	Weld			
		Cuffs			<u> </u>	Contamination	<u> </u>	4	tions Incomplete/Unclear	-	Part Moved	L	Wrong Stock Pulled			
		Crushing			 	Countersink	-	-	gned/off center	\vdash	Positioned V		Other			
	_	Heat Trea			<u> </u>	Cut Too Short	\vdash	Mislabe			Power Loss/	ourge	Other			
	\sqcup	Inspectio	-	Tube	<u> </u>	Drawing	\vdash	Misrea			·					
	\vdash	Marks/Ch				Drill Holes	\vdash	Off-set								
		Turning S			<u> </u>	Finish	_	-	Calibration							
5 .	1	Wave/Tw	vist in Tuk	oe		Fit/Function		Out of	Sequence							

DART AEROSPACE LTD	Work Order:	121690
Description: Radius Block	Part Number:	D3601-1
Inspection Dwg: D3601 Rev: A		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

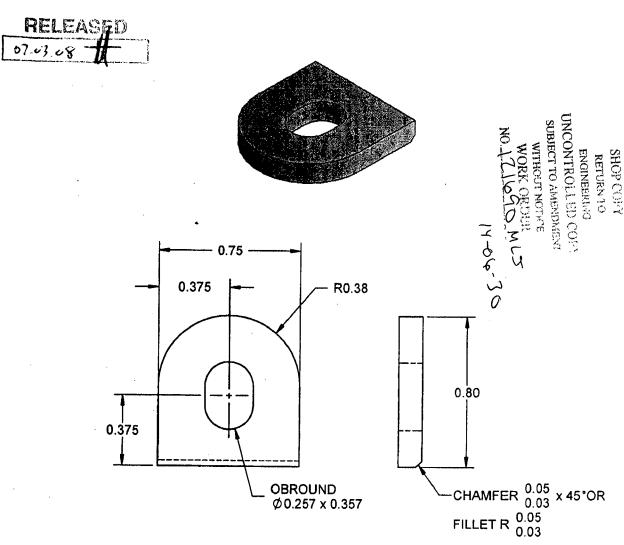
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.75	+/-0.030	. 7S	1		M-04	Calipan
0.375	+/-0.010	<u>.</u> 3 <i>73</i>	~)	i
0.375	+/-0.010	_375	~			
Ø0.257	+0.006/-0.001	-721	J			
0.357	+/-0.010	_ 357	1			
R0.38	+/-0.030	.38	/		rad suga	-
0.80	+/-0.030	.801	/		MH-04	ec
0.3 x 45°	+/-0.010 x 0.5°	245	J		t	l
			<u>. </u>			

Measured by:	MH	Audited by:	DAS 25	Preliminary Approval:	
Date:	14/07/05	Date:	9-89 14 77	Date:	

Rev	Date	Change	Revised by	Approved
Α	07.05.08	New Issue	KJ/JLM ,	44.
В	11.08.22	Dimensions updated	KJ 4K)	12
				-



DESIGN DRAWN BY				DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
L	CHECK	ED	3	APPROVED	DRAWING NO. REV D3601 SHEET 1 0	٠٠١
	07.02.13		2.13	TITLE SCA RADIUS BLOCK	LE 2:1	
L	REV DATE		DATE	DESCRIPTION		
L	Α	07.02.13			NEWISSUE	\neg



D3601-1 RADIUS BLOCK

NOTES:
1) MATERIAL: ALUMINUM 5052-H32 SHEET, 0.125 THICK PER QQ-A-250/8 OR AMS 4016 (REF DART SPEC M5052H32S.125) OR
1. THE SHEET 0.125 THICK PER QQ-A-250/11 OR AMS 4025/

(REF DART SPEC M5052H32S.125) OR
ALUMINUM 6061-T6 SHEET, 0.125 THICK PER QQ-A-250/11 OR AMS 4025/4027
(REF DART SPEC M6061T6S.125)

2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

4) IDENTIFY WITH DART P/N "D3601-1" USING FINE POINT PERMANENT INK MARKER

5) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

6) BREAK ALL SHARP EDGES 0.005 TO 0.050 MAX